

- 20 -

ABSTRACT

A method and apparatus for characterizing the response of an electronic stethoscope. The sensor of the electronic stethoscope is held in contact with a test surface of a phantom. A shaker, which is coupled to a stinger rod that extends inside the phantom, is driven to produce internal vibrations in the phantom. Surface motion of the test surface of the phantom is measured using a surface accelerometer coupled to the test surface. Vibrations from the phantom are detected and an electric signal based on the detected vibrations is generated with the electronic stethoscope. A surface transfer function is calculated based on the measured surface motion and the electric signal to characterize the response of the electronic stethoscope.